CLAIMS:

1. A method of controlling access to a server by a client in a network, said method comprising the steps of:

monitoring resource usage of said server;

allowing a connection of said client to pass to said server where said connection forms part of an active session wherein said connection forms part of an active session if at least one previous connection from said client has passed to said server within a predetermined time interval; and

allowing or rejecting a new connection of another client to pass to said server according to an admission control scheme.

2. A method according to claim 1 wherein the step of allowing or rejecting is based on said resource usage of said server.

3. A method according to claim 1 or claim 2 further comprising the step of searching for an active session of said client and admitting a connection of said client to pass to said server if there is an active session for said client.

4. A method according to any one of claims 1 to 3 wherein said admission control scheme includes the step of determining a congestion level in response to said monitoring step.

5. A method according to claim 4 further comprising the step of calculating a further predetermined time interval based on said congestion level, whereby said new connection is allowed to pass to said server after said further predetermined time interval has expired.

6. A method according to claim 5 wherein said further predetermined time interval represents the time since a new connection was allowed.

7. A method according to claim 5 or claim 6 wherein the allowance of said new connection begins an active session.

8. A method according to claim 4 further including the step of allowing a proportion of new connections to pass to said server based on said congestion level.

9. A method according to claim 8 further comprising the step of searching for previous rejections or previous connections whereby a new connection of a client is rejected and closed if said client has had a previous connection or a previously rejected connection within a specified time period.

10. A method according to claim 8 or claim 9 wherein said proportion of new connections to be rejected p_r is

$$p_r = \frac{c}{c_{max}}$$

where c is the congestion level and c_{max} is the maximum congestion level.

11. A method according to claim 10 further including the step of generating a random number r where r is between zero and one inclusive for each new connection.

12. A method according to claim 11 wherein new connections are allowed to pass to said server if $p_r \leq r$ or are rejected if $r<p_r$.

13. A method according to any one of claims 4 to 12 further including the step of increasing the congestion level if the resource usage is above a first predetermined threshold level.

14. A method according to any one of claims 4 to 12 further including the step of decreasing the congestion level if the resource usage is below a second predetermined threshold level.

15. A method according to claim 4 wherein said congestion level is represented by a number between zero and c_{max}, where zero indicates that the server is operating normally and c_{max} is the maximum congestion level.

16. An interface unit for controlling access to a server by a client in a network, said interface unit comprising:

means for monitoring resource usage of said server;

admission means for allowing a connection of said client to pass to said server where said connection forms part of an active session wherein said connection forms part of an active session if at least one previous connection from said client has passed to said server within a predetermined time interval;

said admission means further rejecting or allowing a new connection of another client to pass to said server according to an admission control scheme .

17. An interface unit according to claim 16 wherein said admission means further rejecting or allowing said new connection is based on said resource usage of said server.

18. An interface unit according to claim 16 or claim 17 wherein said interface unit is connected to said computer network through a first port and connected to said server through a second port.

19. An interface unit according to claim 18 wherein said admission means is connected between said first port and said second port.

20. An interface unit according to any one of claims 16 to 19 wherein said monitoring means is a storage means, such as a database, said storage means linked to said admission means.

21. An interface means according to claim 20 wherein said storage means maintains a table of active sessions of respective clients.

22. An interface unit according to claim 21 wherein said table of active sessions is scanned to determine if said connection is associated with an active session in said table of active sessions.

23. An interface unit according to claim 22 wherein if an active session exists in said table of active sessions for said connection, said connection is passed to said server through said admission means.

24. An interface unit according to any one of claims 16 to 23 wherein said admission control scheme includes setting a congestion level.

25. An interface unit according to claim 24 wherein a further predetermined time interval is calculated based on the congestion level such that a new connection is allowed to pass to said server after said further predetermined time interval has expired.

26. An interface unit according to claim 25 wherein said further predetermined time interval represents the time elapsed since a new connection was allowed.

27. An interface means according to claim 25 or claim 26 wherein said new connection is assigned an active session which is subsequently stored in said table of active sessions.

28. An interface unit according to claim 24 wherein said admission means allows a proportion of new connections to pass to said server based on said congestion level.

29. An interface unit according to claim 28 wherein said proportion of new connections to be rejected p_r is

$$p_r = \frac{c}{c_{max}}$$

where c is the congestion level and c_{max} is the maximum congestion level.

30. An interface unit according to claim 29 wherein a random number r is generated for each new connection where r is a number between zero and one inclusive.

31. An interface unit according to claim 30 wherein said admission mean allows new connections to pass to said server if $p_r \leq r$ or are rejected if $r < p_r$.

32. An interface means according to any one of claims 28 to 31 wherein said storage means stores information about previous connections including previously rejected connections of various clients.

33. An interface unit according to claim 32 wherein a new connection of a client is rejected and closed if the client has had a previous connection or a previously rejected connection within a specified time period.

34. An interface unit according to any one of claims 16 to 33 wherein said monitoring means periodically polls said server to obtain information on said resource usage of said server and subsequently stores said resource usage information.

35. An interface unit according to any one of claims 24 to 34 wherein said congestion level is increased if said resource usage is above a first predetermined threshold level.

36. An interface unit according to any one of claims 24 to 34 wherein said congestion level is decreased if said resource usage is below a second predetermined threshold level.

37. An interface unit according to claim 23 wherein said connection is passed to said server using a connection slot.

38. An interface unit according to claim 22 wherein if no active session exits in said table of active sessions, a search is performed of said storage means for an empty history entry.

39. An interface unit according to claim 38 wherein if said empty history entry is found or an expired history entry is found, said connection is either allowed or rejected in accordance with said admission control scheme.

40. An interface unit according to claim 38 wherein if said history entry is not found, said connection is subsequently closed.

41. An interface unit according to claim 39 wherein an allowed connection is passed to said server using a connection slot or a rejected connection is returned to the respective client using a connection slot and forwarded with a rejection message.

42. An interface unit according to claim 18 wherein said first port has buffer means for storing connections prior to being allowed or rejected by said admission means.

43. An interface unit according to claim 42 wherein said first port is routinely polled for stored connections.

44. An interface unit according to any one of claims 24 to 43 wherein said storage means is updated after a time interval I with information including resource usage of said server, history information and the present congestion level.

45. A communications system incorporating an interface unit according to any one of claims 16 to 44 wherein said interface unit is connected between said server and said network and one or more clients are linked to said server through said network.

46. A communications system incorporating an interface unit according to any one of claims 16 to 44 wherein said interface unit forms part of said server and said interface unit is linked to one or more clients through said network.